



# Southern African Antique Wireless Association

## ZS0AWA



### MARCH 2006 Issue #3

This newsletter is sent out to all who have called in on the AWA net and who have email facility, with the hopes that it will encourage you to call in again and help to keep the AWA net alive and well.

As a matter of Interest, it cost R75.00 for the envelopes and mailing of the February newsletter. So if we have any kind hearted people out there who think the News Letter is worth anything and would like to contribute to sending of the News Letter by snail mail to those who don't have email, then they can contact me direct.

I have tried changing the format this month to save the eventual size of the attachment. I realize most people have dial up connections and don't want to spend too much time downloading an email.

#### **This Month:**

On Saturday 04 February was the open day at the TAC (Transvaal Aviation Club) at Rand Airport. I would have liked to publish some photo's, but in the rush I forgot my camera and I cannot get hold of the guys who did take photo's.

We had a turn out in excess of 100 on the day and it was good to meet everyone and make new acquaintances. For some it was a first time meeting, for others it was renewing acquaintances.

People came from all over to attend the meet. Pretoria, East Rand, West Rand, Vaal Triangle, Witbank, and I don't wish to single out any particular hams, but it was really good to see the Kzn contingent that arrived there. To Don ZS5DR, Rod ZS5RK, Willie ZS5WI and Alan who was not a Ham, thanks guys, we appreciate your support.

Unfortunately the flea market side was very poorly supported with sellers, and of course we did not see any of the "New" that was advertised.

To Gerry and Rowan who set up a station under ZS0AWA, thank you too for the support.

I think in general, it was a great success and next year we would like to see more of the AWA members there.

ZS0AWA/CW.



The CW net continues on Saturday afternoons. Welcome to Andrew ZS6AAA, who has recently joined the Gautengers from the Western Cape.

For those of you interested in keeping your hand in at CW and keeping CW going, do come and join us. The net is run at 12 wpm and so should meet the needs of all interested in CW. 7020 is the frequency on Saturday afternoons at 14:00 SAST.

Clive – ZS6AVP sent this article on the SKCC (Straight Key Century Club).

*Have you ever wished that Straight Key Night would go on and on and on? Have you ever wished for other incentives to dig out your old straight key or old bug and knock the dust off? Ever wished they had a Straight Key Night more than once a year?*

*That is a light you see at the end of the tunnel!! Recently, a group of hams have decided to make their wishes come true and founded the Straight Key Century Club - a/k/a "SKCC". Yep, a Straight Key club - where you can dust off your straight key or old bug, and get on the air and torture other ops with your straight key fist .*

*Here's how it will work:*

*A) Open to any interested amateur*

*B) Membership is free, there are no dues and it shall stay that way as long as practical.*

*C) SKCC numbers are issued for life. Once you get it, it's yours.*

*Take care of it. Above all, USE it.*

*The first day of each month, at 0000Z will be designated as a monthly operating event that allows SKCC members or non-SKCC members to work each other for credit. Contact with 100 SKCC members will qualify that person for a certificate of accomplishment.*

*Suggested operating frequencies are:*

*1.820*

*3.720*

*7.120*

*10.120*

*14.048*

*18.080*

*21.120*

*24.910*

*28.170*

*50.90*

*144.07*

*For your SKCC number, send an email to KC9ECI,*

*[tom@galesvillefiredepartment.org](mailto:tom@galesvillefiredepartment.org)*

*Web Site Group <http://groups.yahoo.com/group/skcc/>*

**Remember the Straight key evening on Monday at 19:30. Freq 3579 on the 80m band. Some of these guys are really using antique stuff. (How about some pics guys)**

## **AM Net:**

The AM net continues to do well and each week draws more people calling in.

A reminder, when calling in on AM, first get your own rig zero beat with the net controller, never mind about frequency readouts. If we can all zero beat on the net controller, then we should all be operating on the same frequency. Do not use “RIT” or “clarifiers” to set your frequency unless you have it set to both transmit and receive frequency. Quite often one uses the RIT to tune in another station, but your transmit frequency remains where you had it originally.

Please remember, those who don't call in on AM, that you may be able to hear the AM stations quite well on your SSB rig, but they cannot copy your SSB transmission.

Because of the amount of callers now on AM, we have started an AM group on Wednesday evening at 07:30 SAST on 80m, freq 3615 (-5 depending on QRM from SSB stations). Please come up and join us if you have the time. Those joining in so far have been Don – ZS5DR (Viking Ranger), Rod – ZS5RK (Collins 32V-2), Cliff – ZS6BOX (TS450), Willem – ZS6ALL and yours truly, ZS6ADY (FT902). This in addition to the AM call in on Saturdays.

## **SSB Net:**

It's really good to see how the net has grown over the past few years and how the interest in valve rigs has grown. With regular callers from all over the country, and further, using all sorts of valve equipment, this net can only increase in popularity.

When calling in to the net, let us know what rig you are using.

## **Promotions:**

The dates for the Radio Technology in Action that is due to travel the country, have been published and are as follows:

**EASTERN CAPE** 29 April Nelson Mandela University Port Elizabeth

**WESTERN CAPE**

13 May University of Stellenbosch

**KWAZULU-NATAL** 15 July University of KwaZulu-Natal

**GAUTENG** 19 August SARL National Amateur Radio Centre

It would be great if we could organize a few static displays of Antique Equipment at these venues as they always attract a lot of attention. Anyone willing to take charge of organizing something at these events could please liaise with myself or Alan – ZS6BIK.

Should you feel so inclined, send us pictures of your shack that we could have them included in the articles in this newsletter.

## **Restoration News:**

Should you know of anyone who may be busy restoring one of the old valve rigs, let us know. It may be of interest to the group to know what's out there and still working.

Ian – ZS5IAN, sent me this article on the Heathkit HW100 and Drake TR4-C, which have both been in his possession.



HW100



TR4C

I will start with the Heathkit HW100 which has got the nick name of Hot Water 100 - don't ask me why they were given this name - but all valve users know them as such!

I have two Heathkit HW 100's and I would guess that they were bought as kits in the late 1960's or maybe early 1970's. They are designed to put out about 100 watts and work on CW and Side Band modes. They cover the bands from 80 meters to 10 meters but of course not the WARC bands. I do not have any clue as to the history of both my rigs other than to say I paid R500 for each of them. The first one was really covered in thick dust and cobwebs, and had not been used for 10 years before I bought it in 2004.

Not knowing anything about valve radio's I was reluctant to plug and play! Therefore I started on the power supply which comes with it's built in speaker. Opening this up, and removing the cobwebs and dust with a paint brush and 12 volt vacuum cleaner with extension sucker tube posed no problems. I did the same with the rig itself and took all the muck out of the top and the bottom of the rig. Each valve was removed one by one, the area around the base was cleaned up and the valve replaced. The rubber rings that drive the variable condensers were broken but I managed to find a source of O rings that fitted.

When it came to switching on the set, I called on my good neighbour and Antique Wireless Association member Gary ZS5NK. (He also keeps me company on a Monday night on our Straight Key nights on 80 meters.) He hooked the HW100 up to his large Variac and started off at 40 volts or so and slowly we built it up to 230 volts in with no smoke or explosions! Luckily I got my first HW100 with the complete assembly book and instruction manual. Remember that these rigs were mostly brought in as kits and each operator had to solder it all together. Looking at the instruction book, it reminds me of the super instructions you get nowadays with the QRP TenTec and Elecraft K1 and K2 kits. All the information is there and in detail.

Quite honestly I can't remember if Gary had to do any tweaking on the first radio, but I do know that I went home that Sunday with the rig in the boot of my car and placed it on my table, added the tuner (a Johnson Viking) and the G5RV and switched on. Made a contact on 40 meters CW and on 40m SSB. It put out about 70 watts at the time, but also had a big problem with sudden small drifts. I think I must have got up the noses of some of the AWA members who had to follow me about the band!

The front of the radio was very dirty, so I took off each knob one by one and cleaned it with a toothbrush and Sunlight Soap. This I have always found to be best for cleaning up a rig. When I had all the knobs off and cleaned and drying, I used a bit of sunlight soap on some soft cloth to brighten up the face. Stubborn marks were removed with the help of some Handy Andy on a soft cloth and the residue removed with a slightly damp cloth and finally a dry dishcloth.

I took this rig up to Estcourt to William ZS5WC who found some mods on the internet and tried his best to stabilise it. However it still has a drift problem and I hope to address this later this year. He did manage to raise the power to 100 watts with two 6146's that I got from Louis ZS5LP in Durban.

Oh yes, before I forget, both my Heathkit HW100's came with the Swan dial. This was because the original HW100 had a very poor dial and it was difficult to accurately get on frequency. Most hams just bought the Swan tuning dial, which I guess gave them a lot more control of the frequency. Somewhere I do have an article on changing from the original Heathkit dial to the Swan. Please note that when I say "dial" I am referring to the tuning knob!

## The second HW100....

Some months ago, a local doctor ZS5KX Walter Savage went to the big DX land in the sky. His wife asked me to dispose of his radio gear. Unfortunately the shack was a separate part of the house and had one door which was accessed via the back garden. It was about 3 steps down from ground level. Any reader knowing the coastal areas of Natal know that the humidity trapped in this area would be great. Unfortunately, Walter spent more time in his study upstairs with his beloved computers than he did downstairs in his shack. I would guess that his shack had not been opened in 5 years. When I went in to make an inventory I was met by a very musty smell and RUST - lots of rust! In this shack I found a Heathkit HW100 put to one side as he had a more modern Kenwood TS430S. The power supply was kept in a different part of the shack and the cable between the two could not be found. (It has since been found!).

I did the usual cleaning job and once again Gary ZS5NK introduced it to his Variac and gave it a slow start up. With this rig, there were many things that were wrong - it would not receive for a start! I was a bit disheartened by this, but Gary being a kind gentleman, said to leave it with him and he will have a look at it as long as I left him the circuit diagram. A few days later, I heard Gary call me on 2 meters and he said all was fine business with the rig. I took it home and plugged it in and have made many fine contacts with it on 40 meters CW - as well as some Saturday morning AWA chats. This rig is very stable. In fact I managed a ragchew on CW with a Japanese station who was astonished to know that I was transmitting on an old valve rig!

## Now to the Drake TR4C.....

Story has it that this rig was owned by a SWL (short wave listener) up in Rhodesia. He had it sealed by the post office so that it was only used on receive. A few years back it fell into the hands of Stan ZS5LX who found he had not space for it when he moved into a retirement complex. It then went to ZS5GN Gerhard who put it in his shack and covered it with a towel to keep off the dust. When it was offered to me it still had its date of manufacture on the back of the rig and the power supply. Gerhard even had its original box! The cleaning of that rig was minimal due to the fact that it had been well preserved. I can honestly say that it was in pristine condition. I sent a photograph to the Drake Owners Club and they told me that it was in superb condition!

This was a plug and play radio! Just plugged it in and connected a Kenwood Tuner to it and connected it to my trusty G5RV. It was SSB and CW and had the magic AM switch position too! I only used it a few times on AM on the Antique Wireless Association net and with good results. However, I often got a slight tickle when brushing past the cabinet when plugging in a straight key. That slight tickle sometimes was more than a tickle, but fixed this by earthing the chassis to the mains.

It used to put out as much as 120 watts on CW! I am not sure in which year my Drake was manufactured but if William reads this, he can look at the tab on the back of the set and it will give you its birth date! Guess it was in the mid 1970's but don't hold me to that!

It did not come with a microphone and in fact it has a strange socket for the microphone. These sockets were used (and still are) in the aircraft industry. Gary ZS5NK loaned my Shure 444 microphone with the correct plug. I only ever got great test and tone reviews with this rig and the Shure 444 and various straight keys.

Unfortunately the big draw back of the Drake TR4C is that the valves used are not common and replacing a valve can be a real pain. It took me 3 months to get a valve from USA when one went faulty. Also a relay started to give problems and I got great service from a company in USA, but still had to pay a lot for postage and clearing it through customs in SA. (Landed cost for the relay was R500!) At this stage, I knew that the rig really belonged to a lover of valves and not an ignorant Irishman like me. Therefore with reluctance, I let it go to William ZS5WC who I know will keep it in good shape.

Andy, I hope that gives you and the AWA members some sense of the three valve rigs that I once owned! I still have the two Heathkits and love them to bits - despite the drift on the one!

## de ZS5IAN

### Antique Clubs and Sites:

Those of you running Old FT rigs, try this website.

<http://foxtango.org/foxtango001.htm>

looking for spares, here's a few:

<http://www.radiodaze.com>

<http://www.surplussales.com>

<http://www.rfparts.com>

**Swap Column:**

No interesting swaps this month.

If you would like to forward this newsletter to any other interested parties, please feel free to do so. Print it out and put in on your club notice board, or give it to someone interested in valve radios. If you know of any who report in on the net but don't have email, print it out and give them a copy.

Remember net days and times:

Saturday 08:30 AM net - frequency – 7070Mhz

Saturday 09:00 SSB net – frequency 7070Mhz

Saturday 14:00 CW net – frequency 7020Mhz

Wednesday 19:30 AM net – frequency 3615(-5 in case of QRM)

Every first Saturday of the month is AM Saturday, and the AM net will continue to 09:15 before taking SSB call in.

Thanks for the bandwidth.

DE ZS6ADY FOR ZS0AWA